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14. ABSTRACT CONTROL ID: 2732795 PRESENTATION TYPE: Slide or Poster CURRENT CATEGORY: Disorders of the Mediastinum TITLE: UNUSUAL MEDIASTINAL MASS ON SHOULDER X-RAY Presenting Author: Adam Young All Authors/Institutions: A.N. Young, D. Ferraro, D.K. Bowen, J.C. Reis, Pulmonary, San Antonio Uniform Services Health Education Consortium (SAUSHEC), JBASA Ft. Sam Houston, Texas, UNITED STATES ABSTRACT BODY: INTRODUCTION: Mediastinal masses found on routine imaging are common with an overall incidence of around one					
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PRESENTATION TYPE: Slide or Poster

CURRENT CATEGORY: Disorders of the Mediastinum

TITLE: UNUSUAL MEDIASTINAL MASS ON SHOULDER X-RAY

Presenting Author: Adam Young

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ABSTRACT BODY:

INTRODUCTION: Mediastinal masses found on routine imaging are common with an overall incidence of around one case per 100,000 persons per year. Endobronchial ultrasound fine needle aspiration (EBUS-FNA) is becoming a common tool to evaluate undifferentiated mediastinal masses.

CASE PRESENTATION: A 43-year-old female with right hemi-thyroidectomy five years prior was evaluated for one month of right shoulder pain, sensory changes and weakness. Shoulder x-ray demonstrated a large mass in the right upper lung field. Computer tomography (CT) demonstrated a well-circumscribed 12 x 8 x 9 cm heterogeneous mass with scattered calcifications which appeared to arise from the mediastinum. A new 2.5 cm left thyroid nodule was also identified on CT. The patient underwent EBUS-FNA of the mass with cytology consistent with benign thyroid tissue. Due to the size of the mass the patient underwent a second biopsy (CT guided transthoracic FNA) to further evaluate for isolated pockets of malignant thyroid tissue within the large mass. No malignant tissue was seen on either biopsy. Thoracic surgery completed a resection of the mass via median sternotomy. Final pathology was consistent with a benign multinodular goiter.

DISCUSSION: Mediastinal goiters after cervical thyroidectomy (aka "forgotten goiters") are infrequently reported in the literature. They are often felt to represent migratory tissue after resection (secondary) due to the negative thoracic pressure and gravity, or true ectopic (primary) tissues missed during the initial surgery. Substernal goiters are encountered with a reported frequency between 0.5-11.9% in recently surgical case analysis while mediastinal goiters are much more rare with a reported incidence of 1%. Patients are often asymptomatic and mass is detected incidentally during routine care or secondary to mass effect on intrathoracic tissues. EBUS-FNA has been successfully used at the initial diagnostic procedure prior to resection.

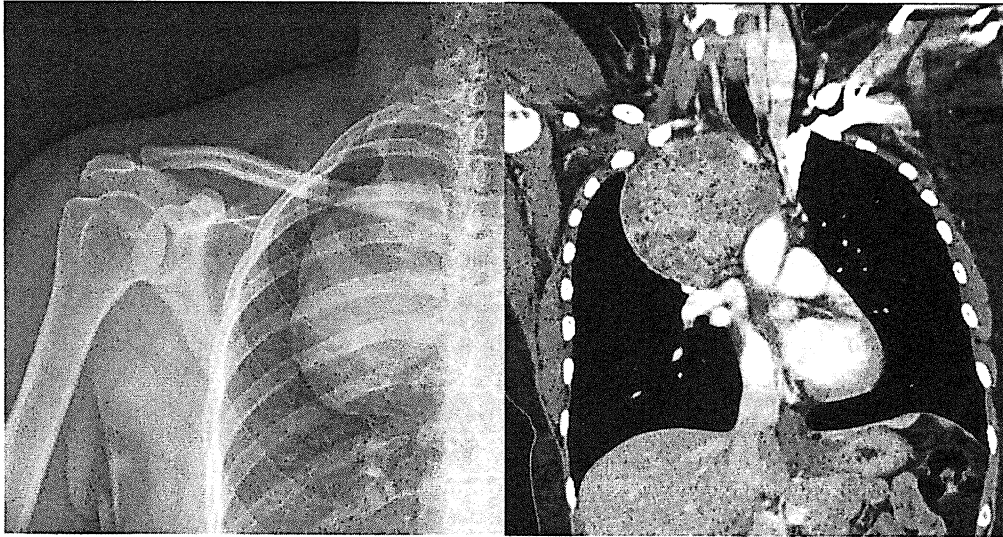
CONCLUSIONS: Mediastinal goiter should be considered in a patient with an anterior mediastinal mass with a history of partial thyroidectomy. EBUS-FNA can be utilized as the first test to identify the diagnosis if there is a concern for a malignant vs benign neoplasm.

Reference #1: Nakaya M, Ito A, Mori A, et al. Surgical treatment of substernal goiter: An analysis of 44 cases. *Auris Nasus Larynx*. 2017 Feb;44(1):111-115.

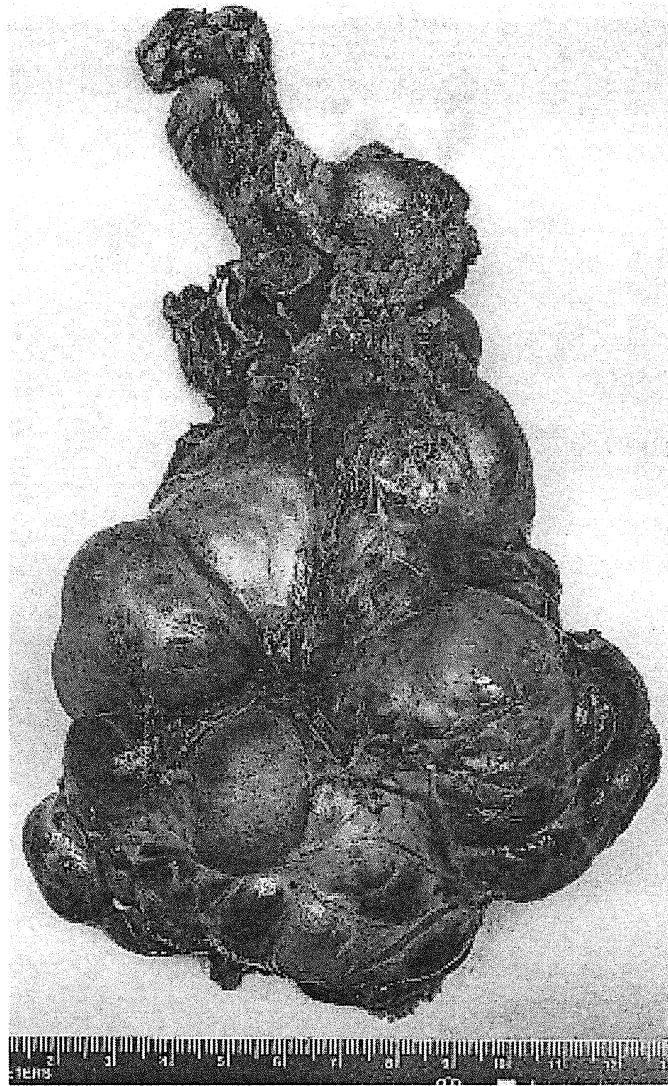
Reference #2: Patel KM, Parsons CC. Forgotten goiter: Diagnosis and management. A case report and literature review. *Int J Surg Case Rep*. 2016;27:192-194.

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Initial shoulder x-ray showing a right apical mass (left image). Subsequent CT demonstrating the anterior mediastinal mass causing displacement and compression of the superior vena cava, trachea, and right mainstem bronchus (right image).



Resected multinodular goiter pathologic specimen prior to processing.

CURRENT SUB-CATEGORY: None

SUBMISSION ROLE: Fellow Case Reports



UNUSUAL MEDIASTINAL MASS ON SHOULDER X-RAY

SAN ANTONIO UNIFORM SERVICES HEALTH EDUCATION CONSORTIUM, JBSA FT SAM HOUSTON, TX, USA

A YOUNG, D FERRARO, D BOWEN, J REIS



Presentation:

- 43 year-old female with prior hemi-thyroidectomy
- One month of shoulder pain, paresthesia, weakness
- Large mediastinal mass on shoulder x-ray
- 12 x 9 x 8 cm heterogeneous mediastinal mass with scattered calcifications and 2.5cm left thyroid nodule on chest CT
- Underwent endobronchial ultrasound guided biopsy of the mass with fine needle aspiration (EBUS-FNA)
- Pathology consistent with benign thyroid tissue
- Patient underwent median sternotomy for mass removal

Discussion:

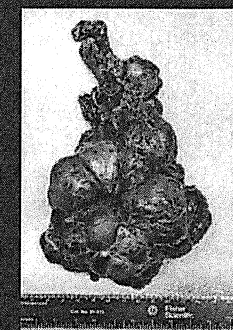
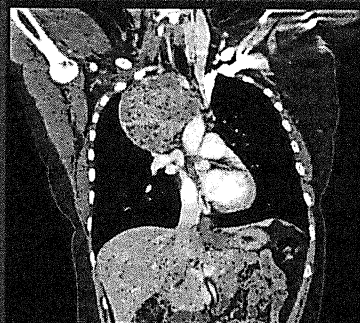
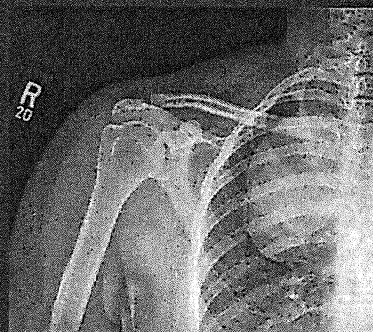
- Mediastinal goiter after cervical thyroidectomy "forgotten goiter" are infrequently reported
- Felt to represent migratory tissue after resection (secondary) possibly due to negative intrathoracic pressure, gravity, or true ectopic tissue (primary) which were missed during initial surgery
- Substernal goiters occur between reported frequency 0.5-11.9%
- Mediastinal goiters are much more rare <1%
- Frequently asymptomatic, discovered during routine care

Conclusion:

- Mediastinal goiter should be considered in a patient with an anterior mediastinal mass with history of partial thyroidectomy
- EBUS-FNA can be utilized as initial diagnostic test if there is concern for malignancy vs. benign neoplasm

References:

- Nakaya M, Ito A, Mori A, et al. Surgical treatment of substernal goiter: An analysis of 44 cases. *Auris Nasus Larynx*. 2017 Feb;44(1):111-115.
- Patel KM, Parsons CC. Forgotten goiter: Diagnosis and management. A case report and literature review. *Int J Surg Case Rep*. 2016;27:192-194.



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